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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,398	09/20/2000	Paul A. P. Kaufholz	PHN 17-643	8968

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

STORM, DONALD L

ART UNIT	PAPER NUMBER
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2654

18

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/666,398

Applicant(s)

KAUFHOLZ, PAUL A. P.

Examiner

Donald L. Storm

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Informalities

1. The Examiner notes, without objection, the possibility of informalities in the claims. The Applicant may wish to consider changes during normal review and revision of the disclosure.
 - a. In claim 1, the singular verb “does” takes a singular subject. Only “receiving” qualifies. If this is as the Applicant intended, no action is required.
 - b. In claim 7, should the phrase “so eliminate the background noise” be --to eliminate the background noise-- or --so as to eliminate the background noise--?

Claim Rejections - 35 USC § 103

Linder

2. Claims 1, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linder [International Publication WO 98/01956], already of record.
3. Regarding claim 11, Linder describes and makes obvious the previously presented claim elements using the same rationale as in the prior Office action (paper 14), and also describes the further limitations as follows:

the audio signal from the microphone includes a speech signal and background noise [at page 5, lines 20-24, as the microphone signal received the user’s voice and noise, and generated an electrical signal];

the remainder of the audio signal received by the microphone that is left by the audio cancellation module comprises primarily the speech signal [at page 6, line 22-page 7, line 2, as the

microprocessor effect is to form a signal which substantially maintains the voice signal received by the microphone].

4. Regarding claim 1, Linder describes and makes obvious the previously presented claim elements using the same rationale as in the prior Office action (paper 14), and also describes the further limitations as follows:

the audio signal from the microphone includes a speech signal and background noise [at page 5, lines 20-24, as the microphone signal received the user's voice and noise, and generated an electrical signal];

receiving the at least two audio sources primarily does not include speech of the speech signal [at page 4, lines 21-26, as receiving the siren signal by the second microphone picks up negligible voice & at page 13, lines 7-11, as other noise generators used with a duplicate of the apparatus];

at least two audio signals contribute to the background noise [at page 13, lines 7-11, as horns, whistles, or other noise generators functioning simultaneously];

the remainder of the audio signal received by the microphone that is left by the audio cancellation module comprises primarily the speech signal [at page 6, line 22-page 7, line 2, as the microprocessor effect is to form a signal which substantially maintains the voice signal received by the microphone].

5. Regarding claim 6, Linder describes the additional limitations using the same rationale as in the prior Office action (paper 14)

Eriksson and Linder

6. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson [US Patent 5,033,082] in view of Linder [International Publication WO 98/01956], both already of record.

7. Regarding claim 7, Eriksson and Linder describe and make obvious the previously presented claim elements using the same rationale as in the prior Office action (paper 14).

Eriksson also describes the further limitations as follows:

the audio source apparatuses are independent apparatuses [at column 1, lines 46-60, as the noise sources sensed by microphone 38 are person 30 and noise source 18 in zone 16 that is spaced from zone 12 with noise source 14];

the audio input includes speech [at column 1, lines 58-59, as microphone 36 senses speech at location 24];

and the audio input includes background noise [at column 2, lines 10-12 and column 2, lines 24-25, as noise from source 14 in the output 58 of microphone 36 and speech from person 30 in the output 58 of microphone 36];

the background is eliminated and the remainder of the audio signal received by the microphone that is left comprises primarily the speech signal [at column 2, lines 46-53, as noise from noise source 14 is electrically canceled and speech from person 30 is electrically canceled and the sum to speaker 34 contains speech from person 26].

Linder also describes the further limitations as follows:

the audio source apparatuses are independent apparatuses [at page 13, lines 7-11, as horns, whistles, or other noise generators each having its own characteristic and functioning simultaneously];

the audio signal from the microphone includes a speech signal and background noise [at page 5, lines 20-24, as the microphone signal received the user's voice and noise, and generated an electrical signal];

the background is eliminated and the remainder of the audio signal received by the microphone that is left by the audio cancellation module comprises primarily the speech signal [at page 6, line 22-page 7, line 2, as canceling the noise component of the signal while substantially maintaining the voice signal received by the microphone];

a speech recognizer [at page 10, lines 5-9, as a speech recognition circuit];

recognizing the speech signal [at page 1, lines 18-20, as recognizing voice commands understood from a user's voice message];

the recognized part of the speech signal remains after noise cancellation [see Fig. 3, items 212, 200, and their description especially at pages 9-10, of input to the speech recognizer is output from the noise cancellation system that substantially rejects background noise from a microphone for receiving a voice signal.

8. Claim 1 is set forth with limitations similar to claim 7. Linder and Eriksson describe and make obvious those limitations as indicated there. Eriksson also describes:

receiving the at least two audio sources primarily does not include speech of the speech signal [at column 1, lines 46-60, as the noise sources sensed by microphone 38 are person 30 and

noise source 18 in zone 16 that is spaced from zone 12 with noise source 14 input from microphone 20, and zone 16 and microphone 20 are spaced from speech input microphone 36].

Linder also describes:

receiving the at least two audio sources primarily does not include speech of the speech signal [at page 4, lines 21-26, as receiving the siren signal by the second microphone picks up negligible voice & at page 13, lines 7-11, as other noise generators used with a duplicate of the apparatus].

Eriksson and Linder and Houser

9. Claims 2, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson [US Patent 5,033,082] in view of Linder [International Publication WO 98/01956], and further in view of Houser et al. [US Patent 5,774,859] using the same rationale as in the prior Office action (paper 14).

Eriksson and Linder and Allen

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson [US Patent 5,033,082] in view of Linder [International Publication WO 98/01956] and further in view of Allen et al. [US Patent 5,485,515] using the same rationale as in the prior Office action (paper 14).

Eriksson and Linder and Houser and Allen

11. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson [US Patent 5,033,082] in view of Linder [International Publication WO 98/01956] and Houser et al. [US Patent 5,774,859] and further in view of Allen et al. [US Patent 5,485,515] using the same rationale as in the prior Office action (paper 14).

Response to Arguments

12. The prior Office action, mailed June 2, 2003 (paper 14), rejects claims under 35 USC § 103, citing Linder alone and in combination. The Applicant's arguments and changes in AMENDMENT filed November 5, 2003 (paper 17) have been fully considered with the following results.

13. With respect to rejection of claims under 35 USC § 103, citing Linder alone and in combination, the Applicant's arguments appear to be as follows:

a. The Applicant's argument appears to be that a feature that distinguishes from Linder is some audio signals that are primarily background noise, that is, primarily do not include speech, and other audio signals are both speech and noise. This argument is not persuasive because Linder describes this subject matter using the terminology at the passages that are specifically cited elsewhere in this Office action.

b. The Applicant's argument appears to be that a feature that distinguishes from Linder is a cancellation module that leaves primarily speech from the input signal of speech and noise. This argument is not persuasive because Linder describes this subject matter using the terminology at the passages that are specifically cited elsewhere in this Office action.

The Applicant's arguments have been fully considered but they are not persuasive. Accordingly, the rejections are maintained.

14. With respect to rejection of claims under 35 USC § 103, citing Linder and Eriksson in combination, the Applicant's arguments appear to be as follows:

The Applicant's argument appears to be that a feature that is not obvious from Eriksson and Linder is some audio signals that are primarily background noise, that is, primarily do not include speech, and the audio signal input to the microphone is primarily speech, but some background, that is, claimed as both speech and noise. This argument is not persuasive because both Eriksson and Linder describe this subject matter using the terminology at the passages that are specifically cited elsewhere in this Office action.

The Applicant's arguments have been fully considered but they are not persuasive. Accordingly, the rejections are maintained.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any response to this action should be mailed to:

Mail Stop AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 872-9306, (for informal or draft communications, and please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA
(Sixth Floor, Receptionist).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Art Unit 2654, whose telephone number is (703)305-3941. The examiner can normally be reached on weekdays between 8:00 AM and 4:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703)305-9645. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4750.

Donald L. Storm
Donald L. Storm
December 23, 2003

Vijay Chawan 12/29/03

**VIJAY CHAWAN
PRIMARY EXAMINER**